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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,381	01/09/2004	Ichiro Kodaka	02JC-105385	7800
30764	7590	04/03/2006	EXAMINER	
SHEPPARD, MULLIN, RICHTER & HAMPTON LLP 333 SOUTH HOPE STREET 48TH FLOOR LOS ANGELES, CA 90071-1448			GOFF II, JOHN L	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/754,381

Applicant(s)

KODAKA ET AL.

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 12, 13 and 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-10, 14-17, 20-25, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 11, 18, 19 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/10/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, Species II (claims 1-11 and 14-28) in the reply filed on 3/16/06 is acknowledged. The traversal is on the ground(s) that there is no serious search burden. This is not found persuasive because the restriction requirement properly set forth that the inventions were distinct as evidenced by their different classifications. Thus, a search for one of the inventions would not necessarily include a search for both inventions.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

2. Claims 1-11 and 14-28 are objected to because of the following informalities: In claims 1 and 17, line 1 delete "CMP" and insert therein - - chemical mechanical polishing (CMP) - -. In claims 1 and 17, line 3 delete "an" and insert therein - - a - -. In claim 19, line 1 delete "17" and insert therein - - 18 - - to provide proper antecedent basis for "said pinch rollers" in a similar manner to claim 3 depending on claim 2. Appropriate correction is required.

3. Claim 28 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 28 which depends from claim 17 requires a second board adjacent said release liner that is separated after laminating. Claim 17 requires the same.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-11 and 14-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kessel (U.S. Patent 6,746,311) in view of Tanaka et al. '528 (EP 978528), Kleinschmidt et al. (U.S. Patent 4,861,648), Tanaka et al. '888 (U.S. Patent 6,514,888), Douglas et al. (U.S. Patent 5,855,733), Hennecken (U.S. Patent 6,040,253), and He (U.S. Patent 6,783,437).

Kessel discloses a method of making a chemical mechanical polishing (CMP) pad by laminating a stack comprising a CMP pad material (104 of Figure 5), a first pressure sensitive adhesive (PSA) (107 of Figure 5) adjacent the CMP pad material, a CMP sub-pad (120 of Figure 5) adjacent the first PSA, a second PSA (121 of Figure 5) adjacent the CMP sub-pad, and a release liner (130 of Figure 5) adjacent the second PSA (Column 4, lines 57-67 and Column 5, lines 1-13 and Example 1). Kessel does not disclose any particular technique for laminating the

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stack. It would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate the stack taught by Kessel using the well known technique of a platen press including removable press pads, i.e. boards, for laminating a stack with even/uniform pressure as shown for example by each of Tanaka et al. '528, Kleinschmidt et al., Tanaka et al. '888, Douglas et al., and Hennecken.

Tanaka et al. '528 disclose a method of laminating a stack (1 of Figure 5) in a platen press (4 of Figure 5) wherein removable smooth press pads, i.e. boards, made of a solid or foam elastomer (3 of Figure 5) having a thickness of 0.004 to 0.12 in. are placed adjacent the upper surface and lower surface of the stack to apply uniform pressure to the stack (Paragraphs 1-3, 66, 82, and 85).

Kleinschmidt et al. disclose a method of laminating a stack (4 of Figure 1) in a platen press (1 of Figure 1) wherein removable smooth press pads, i.e. boards, made of thermoplastic (3 of Figure 1) are placed adjacent the upper surface and lower surface of the stack to apply uniform pressure to the stack (Column 3, lines 18-23 and Column 4, lines 46-54).

Tanaka et al. '888 disclose a method of laminating a stack (3 of Figure 1) in a platen press (1 and 2 of Figure 1) wherein removable smooth press pads, i.e. boards, made of a solid or foam elastomer (6 of Figure 1) are placed adjacent the upper surface and lower surface of the stack to apply uniform pressure to the stack (Column 1, lines 10-49).

Douglas et al. disclose a method of laminating a stack (1 of Figure 4) in a platen press (2 of Figure 4) wherein removable smooth press pads, i.e. boards, (4 of Figure 4) are placed adjacent the upper surface and lower surface of the stack. Douglas et al. teach the press pads apply an equal pressure to all parts of the stack, the press pads are formed of an elastomer, and

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planar dimensions of the press pads are larger than the planar dimensions of the stack to allow for clamping (Column 1, lines 4-24 and Column 2, lines 23-27).

Hennecken discloses a method of laminating a stack in a platen press wherein removable smooth press pads, i.e. boards, made of urethane are placed adjacent the stack to apply uniform pressure to the stack (Column 1, lines 14-32 and Column 3, lines 52-55 and Column 4, lines 52-67 and Column 5, lines 1-17).

Regarding claims 1, 4-7, 17, and 20-22, as noted above Kessel as modified by Tanaka et al. '528, Kleinschmidt et al., Tanaka et al. '888, and Douglas et al. teach the press pad, i.e. board, is made of an elastomer. However, Kessel does not specifically disclose the CMP pad material is made of an elastomer, i.e. a similar composition as the press pad. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the CMP pad material in Kessel as modified by Tanaka et al. '528, Kleinschmidt et al., Tanaka et al. '888, and Douglas et al. any of those well known in the art such as that shown for example by He as only the expected results would be achieved. As to the press pad comprising cast urethane, as noted above the press pad may be solid or foam and comprise urethane wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the urethane press pad taught by Kessel as modified by Tanaka et al. '528, Kleinschmidt et al., Tanaka et al. '888, and Douglas et al. using any well known technique such as casting as only the expected results would be achieved, it being noted He is exemplary of forming a urethane pad material by casting.

He is exemplary of a conventional CMP pad material in the art comprising cast polyurethane foam (Column 3, lines 41-51).

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Regarding claims 8, 9, 23, and 24, as noted above Kessel as modified by Tanaka et al. '528, Kleinschmidt et al., Tanaka et al. '888, Douglas et al., and He teach the press pads, i.e. boards, have a planar dimension larger than the planar dimensions of the stack to allow for clamping. Absent any unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the particular difference in planar dimensions of the stack and press pads as a function of the ability to clamp the stack during pressing as doing so would have required nothing more than ordinary skill and routine experimentation.

Regarding claims 10 and 25, as noted above Kessel as modified by Tanaka et al. '528, Kleinschmidt et al., Tanaka et al. '888, Douglas et al., and He teach the press pad, i.e. board, is smooth having a thickness of 0.004 to 0.12 in. It would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the thickness and thickness tolerance of the smooth press pad in Kessel as modified by Tanaka et al. '428, Kleinschmidt et al., Tanaka et al. '888, Douglas et al., and He within the disclosed thickness range as a function of applying even/uniform pressure as doing so would have required nothing more than ordinary skill and routine experimentation.

Allowable Subject Matter

7. Claims 2, 3, 11, 18, 19, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 2, 3, 18, and 19, the prior art of record fails to teach or suggest a method of producing a CMP pad including forming a stack comprising a CMP pad material, a first adhesive adjacent the CMP pad material, a second PSA adjacent the first adhesive, and a release liner adjacent the second PSA, placing a removable board on the stack, compressing the stack by passing the stack with the board thereon through pinch rollers to laminate the stack, and separating the board from the laminated stack.

Regarding claims 11 and 26, the prior art of record fails to teach or suggest a method of producing a CMP pad including forming a stack comprising a CMP pad material, a first adhesive adjacent the CMP pad material, a second PSA adjacent the first adhesive, and a release liner adjacent the second PSA, placing a removable board on the stack, compressing the stack to laminate the stack, and separating the board from the laminated stack, the board including a recess having a planar shape equal to or larger than the CMP pad material and having a depth approximately 50% to 90% of the thickness of the CMP pad material.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "John L. Goff".

John L. Goff